

ALLOWED CLAIMS - SN 08/756,776

31. (Amended) A septal defect closure device comprising first and second occluding disks, each disk comprising a flexible, biologically compatible membrane capable of being collapsed for passage through a catheter and elastically returning to a predetermined shape for tautly holding a portion of the membrane against a septum; a central portion of the membrane of the first disk being affixed to a central portion of the membrane of the second disk to define a conjoint disk having a diameter, a maximum dimension of at least one of the first and second disks being between about 1.6 and about 2.5 times the diameter of the conjoint disk.
32. (Amended) The closure device of claim 31 wherein the central portions of the membranes are bonded directly to one another to define the conjoint disk.
33. (Amended) The closure device of claim 32 wherein the central conjoint disk is sized to substantially fill a septal defect.
34. The closure device of claim 31 wherein the affixed central portions of the membranes define a generally circular central conjoint disk.
35. (Amended) The closure device of claim 31 wherein the central portions of the first and second membranes are sewn together to define the conjoint disk.
36. The closure device of claim 31 wherein the central portions of the first and second membranes are fixed to one another by a biologically compatible adhesive.
37. (Amended) The closure device of claim 31 wherein each of the first and second disks has a periphery, each disk further comprising an elastically deformable frame formed of an elongate wire extending along and attached adjacent to the periphery of the membrane.
38. (Amended) The closure device of claim 37 wherein the membranes are formed of a superelastic material.

39. (Amended) The closure device of claim 31 wherein the conjoint disk comprises a tubular segment.
40. (Amended) The closure device of claim 39 wherein the tubular segment comprises a segment of the membrane of the second disk.
41. (Amended) The closure device of claim 39 wherein the conjoint disk comprises a piece of another material disposed between the first and second disks.
42. (Amended) The closure device of claim 31 wherein the conjoint disk comprises a piece of another material disposed between the first and second disks.
43. (Amended) The closure device of claim 31 wherein the first and second disks are approximately the same size.
44. (Amended) The closure device of claim 31 wherein the conjoint disk further comprises a biocompatible polymer.
45. (Amended) The closure device of claim 44 wherein the conjoint disk is substantially impervious to fluids.
46. The closure device of claim 31, further comprising a tether for releasably attaching the closure device to a delivery device.
47. (Twice Amended) A method of closing a septal defect in a septum comprising the steps of:
 - (a) determining the size of the defect;
 - (b) selecting a closure device comprising first and second disks, each disk comprising a flexible structure having a periphery, a portion of the structure of the first disk being joined to a portion of the structure of the second disk by a joining segment having a size approximating the size of the defect;
 - (c) collapsing the first and second disks and inserting the closure device in a catheter having a distal end;
 - (d) positioning the distal end of the catheter adjacent a septal defect;

- (e) urging the first disk of the closure device out of the distal end of the catheter and permitting the first disk to elastically return to a predetermined shape on a first side of the defect; and
- (f) urging the second disk of the closure device out of the distal end of the catheter and permitting the second disk to elastically return to a predetermined shape on a second side of the defect, opening of the second disk automatically urging at least the peripheries of the first and second disks against opposite sides of the septum and positioning the joining segment within the defect to substantially fill the defect.

48. (Twice Amended) The method of claim 47 wherein the joining segment comprises a tubular segment, the closure device being selected such that the maximum dimension of at least one of the disks is at least about 1.6 times the diameter of the defect.

49. The method of claim 47 wherein the second disk is urged out of the distal end of the catheter by retracting the catheter in a proximal direction.

50. (Amended) The method of claim 47 further comprising retracting the catheter in a proximal direction after the first disk has been urged out of the catheter until the first disk engages the septum.

51. The method of claim 47 wherein the size of the defect is determined using a balloon catheter, the size of the defect being measured as a stretched diameter thereof.

52. The method of claim 47 wherein the closure device further comprises a tether attached thereto, further comprising the step of detaching the tether from a delivery device after urging the second disk out of the catheter.

[Claims 53-58 have been cancelled.]

59. (Amended) A septal defect closure device comprising first and second occluding disks, each disk comprising a membrane formed of a porous, biologically compatible fabric, each of the membranes being capable of being collapsed for

passage through a catheter and elastically returning to a predetermined shape for holding the membrane tautly against a septum, a central portion of the membrane of the first disk being joined to a central portion of the membrane of the second disk with a piece of another material being disposed between the affixed central portions of the first and second disks.

60. (Amended) The closure device of claim 59 wherein the joined central portions of the first and second disks comprises a conjoint disk.
61. The closure device of claim 60 wherein the conjoint disk comprises a tubular segment.
62. The closure device of claim 60 wherein the conjoint disk has a diameter, a maximum dimension of at least one of the first and second disks being between about 1.6 and about 2.5 times the diameter of the conjoint disk.
63. (Amended) A method of closing a septal defect in a septum comprising the steps of:
 - (a) providing a closure device comprising first and second disks, a portion of the first disk being connected to a portion of the second disk by a tubular segment sized to approximate the size of the defect;
 - (b) collapsing the first and second disks and inserting the closure device in a catheter having a distal end;
 - (c) positioning the distal end of the catheter adjacent a septal defect;
 - (d) urging the first disk of the closure device out of the distal end of the catheter and permitting the first disk to elastically return to a predetermined shape on a first side of the defect; and
 - (e) urging the second disk of the closure device out of the distal end of the catheter and permitting the second disk to elastically return to a predetermined shape on a second side of the defect, opening of the second disk automatically urging the first and second disks against